BABALOLA RAMAT AYOBAMI

1. Discuss communicable disease under the following headings:

(a)

Communicable Disease is an infectious disease or illness caused by infectious agents that can be spread from one person to another, either directly or Indirectly. It is a disease that can be transmitted from one person to another.

Example;Tuberculosis, measles, Covid 19, HIV/AIDS, Hepatitis B, Cholera, etc.

(b)

A causative agent is the microorganism or pathogen that is responsible for causing a disease. It can affect a person, Animal or plant,It is the cause of a disease. Causative agents can be bacteria, viruses, fungi, parasites, or other microorganisms.

(c)

Mode of transmission refers to the way a disease causing organism (causative agent) is spread from one host (person, animal, or object) to another.

It means how an infection moves from its source to a new person. Example; Direct transmission and Indirect transmission.

(d)

Methods of prevention and control refer to the measures and actions taken to stop the spread of diseases and to protect people from becoming infected. They are the ways used to avoid getting a disease and to manage it if it occurs.

It is also the strategies, practices, and interventions designed to reduce the risk of infection, limit disease transmission, and manage existing cases to protect public health. Examples; Vaccination, proper sanitation, health education, personal hygiene, Isolation and quarantine etc.

(2)

ENDEMIC: Endemic refers to a disease that is constantly present within a particular geographic area or population group. it means the disease regularly occurs in a certain place or among certain people. it is always there, though usually at a stable or predictable level. Example;Malaria,Chickenpox etc.

EPIDEMIC: Epidemic is the sudden increase in the number of cases of a disease in a particular area or population above what is normally expected.

It means a disease spreads quickly and affects many people at once within a short period of time. Examples; Ebola, Cholera, yellow fever, Lassa fever,Meningitis etc.

PANDEMIC: A pandemic is a disease outbreak that spreads across several countries or continents, affecting a large number of people worldwide. It also means a disease that starts in one place but spreads globally. A pandemic is the worldwide spread of a new infectious disease that affects a large. Examples; Covid 19, plague etc.

(3)

Define and distinguish between incidence and prevalence. Explain their importance in epidemiology with examples.

INCIDENCE: Incidence refers to the number of new cases of a disease that occur in a specific population during a defined period of time.

It measures the risk or probability of developing a disease. Example:50 new HIV cases this year.

PREVALENCE: Prevalence refers to the total number of existing cases (both new and old) of a disease in a specific population at a particular point or period in time.

It measures the burden of disease in a population.

Example; 200 people currently living with HIV.

Important of incidence

(I) Identifies risk of disease occurrence: Helps show how likely people are to develop a disease.

(II) Detects outbreaks and epidemics: A sudden increase in incidence signals a new outbreak (e.g., cholera epidemic).

(iii) Assesses effectiveness of prevention programs:A decrease in incidence after interventions (like vaccination) shows success.

(iv) Guides resource allocation: Helps plan control measures where new infections are rising.

Important of prevalence

(I) Shows the overall disease burden: Helps understand how widespread a disease is in the community.

(Ii) Guides healthcare planning and resource needs: High prevalence means more long-term care and facilities are needed.

(iii) Useful for chronic disease studies: Helps monitor conditions like diabetes, HIV, or hypertension, which last long.

(iv) Assists in policy development: Provides evidence for health priorities and funding decisions.

(4)

Describe the measures used in controlling communicable diseases at the community level.

Controlling communicable (infectious) diseases in a community involves preventing transmission, detecting cases early, and protecting the healthy population.

(I) Health Education: Teaching the community about causes, spread, and prevention of diseases. Helps change risky behaviors that promote disease transmission.

(Ii) Immunization (Vaccination): Giving vaccines to protect individuals and the community against specific infectious diseases.

(iii) Environmental Sanitation:Maintaining a clean and safe environment to prevent disease spread.

(iv) Isolation and Quarantine; Isolation means separating sick individuals from healthy people to prevent disease. Quarantine means Restricting movement of healthy people who have been exposed to a disease during its incubation period.

(v) Surveillance and Early Detection: Continuous monitoring and reporting of disease cases in the community.

(vi) Community Participation: Involving community members in planning and implementing control measures.

(vii) Legislation and Public Health laws: Government regulations to protect public health and Ensures community-wide compliance with disease control measures.

(Viii) Improved Nutrition and Personal Hygiene; Strengthening body immunity and maintaining cleanliness.

(Ix) Case Detection and Treatment: Finding and treating infected individuals promptly.To cure patient and prevent further spread.

(x)Vector Control; Controlling insects or animals that transmit diseases (vectors).And interrupt disease transmission.

(5)

Write short notes on the following: Epidemiological triangle, vehicle-borne transmission, point prevalence and period prevalence.

Epidemiological triangle: The epidemiological triangle is a model that explains how diseases occur and spread through the interaction between three main factors; the agent, the host, and the environment.

Vehicle-borne transmission is a type of indirect transmission of disease that occurs when an infectious agent is carried on or in a non-living object or substance (called a vehicle) to a susceptible host.

Point Prevalence: Point prevalence measures the proportion of people who have a disease at a specific point in time.

Period Prevalence: Period prevalence measures the proportion of people who have a disease at any time during a specific period (e.g., a week, month, or year).